

"Bon Pascu" 1976 "Merry Christmas"

Lago Oil & Transport Company, Ltd.

Aruba, Netherlands Antilles



Un Mensahe di President A Message from the President

E temporada di Fiesta ta un tempo special pa tur hende, particularmente pa confraternidad cu familia y amigonan. Na nomber di Gerencia di Lago mi ta desea di extende Saludos di Tom-

porada na tur nos empleadonan y pensionistanan, nan familia y amigonan. Ojalá cu cada uno di boso conoce tur e alegria di e temporada di fiesta y nos mehor deseonan pa 1977.

Mirando atras, 1976 ciertamente tabata un aña di mehoracion na Lago. Segun economia mundial a cuminza recupera, demandas pa productos petrolero a ser fortificá, especialmente demanda pa azeta combustible na Estados Unidos, nos mercado principal. Esaqui a resulta den poco mas refinacion y, en general, den un actividad creciente den refineria. Nos a enfrenta hopi desafío cu exito durante e aña, incluyendo e Contract Colectivo nobo y mehoracion di plannan di beneficio. Ademas, e programanan ambiental, di seguridad y pa conservacion di energia a sigui ser apoyá den henter nos organizacion.

Mirando padilanti na 1977, nos mester construi for di loque nos a logra den 1976 y traha hunto pa responde na e desafíonan nobo cu lo enfrenta nos na 1977. Mas atencion na seguridad tanto na trabao y pafor di trabao mester ta promer den nos mente segun nos ta drenta e Aña Nobo. Nos mester trata pa mehora nos eficiencia pa por ta competitivo den negoshi di refinacion. Mientras e tareanan aqui lo ta substancial, mi ta sigur cu e fuerza laboral di Lago tin e abilidad y dedicacion pa acepta y enfrenta e desafionan ey manera nan a haci den pasado. Mi ta quere cu nos mester drenta e Aña Nobo cu un fé renobá di uno den otro y depende ariba e espirito cooperativo y iniciativo di tur empleadonan di Lago pa traha pa progreso continuo di Lago y Aruba.

Den e espirito aqui mi ta desea cada uno di boso un Pascu Alegre y un Feliz Aña Nobo. Lee Maymond

The Holiday Season is a special time for everyone, particularly for fellowship with family and friends. On behalf of Lago'm Management I wish to extend Season's Greetings to all of our

employees and annuitants, their families and friends. May each of you know all the joy of the Holiday Season and our best wishes for 1977.

Looking back, 1976 was certainly a year of improvement at Lago. As the world economy began recovery, demands for petroleum products strengthened, especially demand for fuel oil in the U.S., our major market. This resulted in somewhat higher crude runs, and, in general, increased activity in the refinery. We have met many challenges with success during the year including the new C.W.A. and the improvement in benefit plans. Also, the safety, environmental and energy conservation programs continued to be supported throughout our organization.

Looking ahead to 1977, we must build on our accomplishments in 1976 and work together to meet the new challenges which will face us in 1977. Increasing safety awareness both on and off the job should be foremost in our minds as we go into the New Year. We must strive to improve our efficiency in order to be competitive in the refining business. While these tasks will be substantial, I am sure that the Lago work force has the ability and dedication to accept and meet these challenges as they have done in the past. I believe we should welcome the New Year with renewed faith in one another and rely on the cooperative spirit and initiative of all Lago employees to work towards the continuing progress of Lago and Aruba.

In this spirit I wish each and every one of you a Merry Christmas and a Happy New Year.

In Letter to Lago's President

Exxon's Chairman of the Board, Cliff Garvin, Extends Season's Greetings to Lago Management and Employees

December 1, 1976

Dear Lee:

Please tell the men and women of your organization how much we appreciate all they did during 1976 to make this a company of which we can all be proud.

This has been a year in which we have had occasion to reflect on history and renew our perspective and understanding of the accomplishments of those who have gone before us. As 1977 approaches, let us remember that as they shaped our lives, we have an opportunity to shape a better world for those who follow us.

Howard Kauffmann joins me in extending our very best wishes to you, your associates, and your families in this holiday season.

With warmest regards.

Sincerely, (Sgd.) CLIFF

Den Carta na President di Lago

President di Junta di Exxon, Cliff Garvin, Ta Extende Saludos di Temporada na Gerencia y Empleadonar

December 1, 1976

Apreciable Lee:

Sea asina bon di bisa e hombernan y muhernan di bo organizacion com hopi nos ta aprecia tur loque nan a haci durante 1976 pa haci esaqui un compania di cual nos tur por ta orguyoso.

Esaqui tabata un aña den cual nos tabatin ocasion pa refleha ariba historia y renoba nos perspectiva y comprension diloque esnan cu a bai nos dilanti a logra. Segun 1977 ta acercando, laga nos recorda cu mescos cu nan a forma nos bidaz nan, nos tin un oportunidad pa forma un mehor mundo pap esnan cu ta sigui nos.

Howard Kauffmann hunto cu mi ta extende nos mehor de seonan na bo, bo asociadonan y boso familianan den e tem a porada di fiesta aqui.

Cu saludos caluroso.

Sinceramente, (Firmá) CLIFF Aruba, Netherlands Antilles

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December 1976

Contribucion di Lago Na Imeldahof Ta Yuda Hobennan Den Necesidad

Acceptando un contribucion di Lago ariba Diahuebs, December 9, 1976, for di President di Lago L. R. Raymond tabata Directriz di e Orfanato Imeldahof na Noord, Soeur Brigitte.

Ora el a presenta donacion, Sr. Raymond a remarca cu ta un placer pa Lago sigui apoya trabao pa hubentud di e orfanato, cual ta dedica su mes na causa valioso aqui desde 1954.

Presenciando e ceremonia cortico den oficina di President di Lago tabata Soeur Parvula y Gerente di Public Affairs di Lago, Sr. M. H. Henriquez.

Actualmente Imeldahof tin 56 mucha entre 4 y 21 anja cu ta bao su cuido constante y cu ta ser hospedá den cuatro pavilion.

Ralph Swingholm Ta Tuma Asignacion Nobo cu ARAMCO Na Saudi Arabia na 1977

Ralph Swingholm a acepta un oferta for di Arabian American Oil Co. (ARAMCO) na Saudi Arabia efectivo mitar di Januari 1977. El lo bai traha na Houston pa mas of menos un anja promer cu el tuma su encargo como Gerente di Proyecto I cu ARAMCO.

Siendo un graduado cu grado di Bachillerato den Ingeniería Química for di Universidad di Illinois, Ralph tabatin nuebe anja di experiencia den industria químico y petrolero promer

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R. S. Swingholm



Sister Brigitte accepts a donation check from Lago President Lee R. Raymond on behalf of the Imeldahof youth, while Sister Parvula and Public Affairs Manager Milton H. Henriquez look on.

Soeur Brigitte ta accepta un donacion for di President di Lago Lee R. Raymond na nomber di hubentud di Imeldahof, mientras Soeur Parvula y Gerente di Public Affairs Milton H. Henriquez ta mirando.

Ralph Swingholm Takes Up New Assignment With ARAMCO in Saudi Arabia Early 1977

Ralph Swingholm has accepted an offer from the Arabian American Oil Co. (ARAMCO) in Saudi Arabia effective mid-January 1977. He will report to Houston for about one year prior to taking up his assignment as Project Manager I with ARAMCO.

A B.S. graduate in Chemical Engineering from the University of Illinois, Ralph had nine years' experience in the chemical and petroleum industry before he joined Lago in 1961 as an Engineer in Technical-Process Engineering Division. He subsequently held the positions of Supervising Engineer, Process Foreman and Operations Coordinator and was promoted to Division Superintendent of the new Process HDS Division in May 1971.

Ralph subsequently worked as Division Superintendent of the Process Engineering and Crude & Products Coordination divisions in the Technical Department. He is currently Division Superintendent of the Project Development Division.

At Lago Ralph followed over a dozen company-sponsored courses and was coordinator for ■ Basic Process Design Course twice in Lima, Peru, and twice in Bangkok, Thailand. He

was the Process Startup Leader for both the HDS-I and HDS-II projects.

Ralph will be accompanied on his new assignment by his wife Frances and their two daughters and two sons.

Lago Gives Contribution To Imeldahof Orhpanage To Assist Youth in Need

Accepting a Lago contribution on Thursday, December 9, 1976, from Lago President L. R. Raymond was the Directress of Imeldahof Orphanage at Noord, Sister Brigitte.

In presenting the donation, Mr. Raymond remarked that Lago is pleased to continue supporting the youth work of the orphanage, which has been dedicated to this worthy cause since 1954

Attending the brief ceremony in the Lago President's office were Sister Parvula and Public Affairs Manager M. H. Henriquez.

At present the Imeldahof Orphanage has 56 children of ages 4 to 21 under its constant care, who are accommodated in four homes. Senior Editor: A. Werleman Editor: Mrs. L. I. de Cuba

Photographs by: Joe's Photographic Service

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Lago President Lee R. Raymond hands a donation to Casa Cuna Directress Mrs. Euthana Barros to assist Aruba's youth. Attending the ceremony were Public Affairs Manager Milton H. Henriquez and two Casa Cuna children.

Presidente di Lago Lee R. Raymond ta presenta donacion na Directriz di Casa Cuna Sra. Euthana Barros pa yuda hubentud. Presente na e ceremonia tabata Gerente di Public Affairs Milton H. Henriquez y dos hoben di Casa Cuna.

3er Grupo di Trainees Ta Termina Curso Basico di Oil Movements di Cuatro Siman

Ariba December 23, cuatro Docks Utility Men, Urbano Figaroa, Remigio Kelly, Francisco Maduro y Romero Petrochi, a completa un Curso Basico di Oil Movements di cuatro siman. E obheto di e programa tabata pa sinja e empleadonan, quende recientemente a transferi pa Oil Movements Division, e fundamentonan basico di operacion di refineria pa nan por cualifica pa assistant operator.

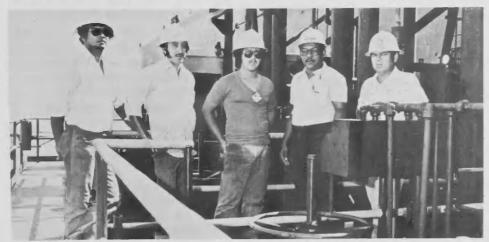
E programa ta partí den dos seccion. Fase I ta consisti di entrenamento den klas y ta dura un siman. E topiconan cu a ser instruí ta

inclui: Matematica, Presion, Fluho Fluido, Temperatura y Calor, Tratamento cu Seguridad di Materialnan Volatil, Actitud Positivo, Oil Mist, Seguridad den Operacionnan di Proceso, Conservacion di Energia, Entrenamento pa paga Candela y Uso di Scott Air-Pak.

Fase II a consisti di tres siman di entrenamento ariba wafnan y na reefberths bao guia di Entrenador pa e Area Efraim Rafael.

Dos curso similar ya a ser duná mas tempran den anja y a ser completá door di Franklin Boekhoudt, Francisco Harms, Juan Croes, Bernardino Thiel, Roberto Vrolijk, Jose Tromp y Rosendo Gomez. E empleadonan ey a haya entrenamento mas specifico pa e terrenonan di Black Oil y Fuel Oil.

E programanan aqui a ser coordiná pa Dufi Kock, Coordinador di Entrenamento di Process.



Donacion Na Casa Cuna Ta Yuda Fundacion Sigui Nan Trabao pa Hubentud

Ariba Diahuebs, December 9, 1976, un ceremonia cortico a tuma lugar na Lago durante cual President L. R. Raymond a presenta un donacion na Directriz di Casa Cuna, Sra. Euthana Barros.

E donacion ta pa yuda Casa Cuna continua su trabao social na beneficio di hubentud neglishá di Aruba. E hogar pa mucha awor ta percura pa cuido 24-ora pa dia di como 21 mucha y cuido durante dia pa 14 mucha, variando entre edad di baby te 6 anja.

Tambe presente na e ceremonia tabata Gerente di Public Affairs di Lago Sr. M. H. Henriquez, y dos jovenes di Casa Cuna.

Swingholm Ta Bai.

(Continuá di pag. 3)

cu el a drenta servicio di Lago na 1961 como un Ingeniero den Technical-Process Engineering Division.

Luego el III ocupa III posicionnan di Ingeniero Supervisorio, Process Foreman y Coordinador di Operaciones y a haya promocion pa Superintendente di Division di e Process HDS Division nobo na Mei 1971.

Luego Ralph a traha como superintendente di divisionnan di Process, Engineering y Crude & Products Goordination den Depto. Tecnico.

Actualmente el ta Superintendente di Division di Projects Development

Na Lago Ralph a sigui mas di un' docena di cursos bao auspicio di compania y tabata coordinador pa un Curso Basico pa Diseño di Proceso dos bez na Lima, Peru, y dos bez na Bangkok, Thailand. Tambe el tabata Process Startup Lider pa ambos projectos di HDS-I y HDS-II.

Ralph lo ser acompañá pa su asignacion nobo door di su esposa Frances y nan dos yiu muher y dos yiu homber.



Third group completing an Oil Movements

Basics Course trains at Reefberth I (I tor): Remigio Kelly, Urbano Figaroa, Fran-3
cisco Maduro, with Instructor Efraim Rafael and Duff Kock, Process Training Coordinator.

Tercer grupo cu ta completa Curso Basi-³
co di Oli Movements ta train na Reefberth¹
I (r pa d): Remigio Kelly, Urbano Figaroa,¹
Francisco Maduro, hunto cu Instructor
Efraim Rafael y Dufi Kock, Coordinator di^y
Process Training.

30-Year Service Anniversaries



Mario Ras (center) of Mechanical-Metal Trades is congratulated by Div. Supt. L. Anjie em his 30th service anniversary (Nov. 12).



Celtico E. Capriles (c) of Mechanical-Metal Trades receives 30year service certificate from Div. Supt. L. Anjie (Dec. 2).



Honoring Estanislao Koolman (c) of Mechanical-Equipm. Operations for 30 years of service (Dec. 3) is Div. Supt. L. Anjie.



Lourens Croes of Mech. Metal Trades receives 30-year service award from Div. Supt. L. Anjie (Dec. 9) while C. Laclé looks on.

25-Year Service Watch Recipients



Mario Tromp (4th from r) of Technical-Lab. Inspection with co-workers (Oct. 1)



Roberto Dijkhoff (c) of Contr.-General Acctg. in President's Office (Nov. 19)



Casper D. Rasmijn (c) of Contr.-Fac. Accounting completed 25 years Nov. 22.



Genaro M. Quandt (left) of Process-HDS receives his service watch (Nov. 26.)



Eric O. Croes (c) of Process-Oil Movts. receiving his service watch (Dec. 3).



Johan G. Richardson, Mech.-M&C, (2nd r.) received his gold watch on Dec. 10.



E. Brown was an instructor for Electronics & Instrumentation course.

E. Brown tabata un instructor pa curso di Electronica y Instrumentacion.



N. O. Cross from ER&E taught a No N. O. Cross # ER&E tabata instruct

Mechanical Has Efficient, Modern Training Center to Teach STIP

Since STIP (Skills Training Improvement Program) was introduced at Lago in October 1974, over 1800 Mechanical, Process and other employees enjoyed the benefit of this newest theoretical and practical training program in the new Mechanical Training Center. This represents over 37,000 manhours of training in the past two years, which included over 26,000 manhours of training for 1976.

Located in the southeast wing's first and second floors of the Laboratories, the training center includes four clasrooms and an audio-video studio with accommodation for over 120 persons, a coffee room, a library for video cassettes and slide programs, and related facilities.

A joint project of Exxon Company and Exxon Chemical Company, U.S.A., STIP is intended to provide a coordinated approach within Exxon to the training needs of Mechanical and Process employees primarily. The concept of skills training Modules is part of this program. A module is considered a group of related tasks, skills and subject matter that can be logically presented as a self-contained unit of training.

STIP includes videotaped instruction and/or lectures in a specific field with questions and problems in programmed instruction work books. A unit of 'training may vary from a 2-hour to a 40-hour program.

The employee can also do practical work in a skills training lab and he takes tests on classroom and laboratory work. This classroom and lab instruction is also followed by additional applicatory experience and job practice for full job proficiency.

practice for full job proficiency.

The Mechanical Training Center has a library of 244 STIP modules,

not including seventeen training programs developed at Lago on such topics as Nondestructive Testing, G.E. Bulk Power, Probolog 700, Ledeen Valves, Deltak Computer Operations, and others.

Classroom instruction can be centrally given and controlled through slide-tape units or via cassette display units or are given through individual instructors. Several instructors cooperated with these programs, including: R. Amaya, E. Browne, E.A. Cook, E. Diaz, P. de Souza, E. Dowling, J. Francis, R. Geerman, W. Geerman, U. G. Gilhuys, J. Harms, R. Hodge, P.J. Irausquin, J. Jackson, A. Kock, L. Kock, E. Rafael, A. Ras, F. S. Ruiz, E. Rumnit, F. Rumnit, N. Salas, R. Washburn and J. Yarzagaray.

The MTC has several video-tape recording and replay units and slide-tape players, a fully equipped video studio for taping training programs in color and a library of STIP Slide and Videotape cassettes covering such areas as Process, Instrument, Electrical, Machinist, Mechanical and Technical programs. The Center is also equipped to present video-taped programs or STIP programs in specific locations in the refinery.

Other programs which MTC assisted in presenting to several groups of employees include: Safety Training, First-Aid, Contract Training and Bulk Power Project training programs, and a Boiler & Refractory Program that was also attended by Public Utilities representatives.

STIP and other programs are obtained from other libraries, such as from Exxon, Foxboro, Betz. I.B.M.,



Mechanical employees following a video-c. Electronics Computer training program in the five classrooms of the Mechanical Till Center.



Jerry Francis scheduling training programs a do programas di entrenament,

Time Life Video and Great Plains University.

STIP and the many other training programs are coordinated by Jerry



esting and a Radio Graphics Course.

No-Destructivo y pa Radio Grafico.



Dick Worth of ER&E (Baytown) teaching ■ Boiler and Refractory course.

Dick Worth dl ER&E (Baytown) dunando un curso tocante Boiler y Refractory.



Mechanical Tin Centro di Entrenamento Moderno, Eficiente pa Sinja STIP



p following a G. E. training Program on new gear and Relays for the new Bulk Power while the program is being video-taped for future use.



control room at left. Jerry Francis fihanntrol di operaciones na robez.

Francis, who schedules, presents and keeps a record of programs covered as requested by the departments concerned.

Desde cu STIP (Programa di Entrenamento pa Mehora Habilidad) a ser introduci na Lago na October 1974, mas di 1800 empleado di Mechanical, Process y otro empleados a recibi e beneficio di e programa di entrenamento teoretico y practico aqui den e Mechanical Training Center nobo. Esaqui ta representa 37,000 ora di entrenamento den ultimo dos anja, cual a inclui mas di 26,000 ora di entrenamento pa 1976.

Situá den e parti zuidoost, promer y segundo piso di Laboratorio, e centro di entrenamento tin cuatro local pa duna les y un studio di audiovideo cualnan tin acomodacion pa mas di 120 persona, un sala pa coffi, un libreria pa video cassette y programa di slide y otro facilidadnan.

STIP, cual ta un proyecto conhunto di Exxon Company y Exxon Chemical Company di Estados Unidos, ta intencioná pa duna un esfuerzo coordiná dentro di Exxon pa e necesidadnan di entrenamento primeramente pa empleadonan di Mechanical y Process. E concepto di Modulanan di entrenamento ta parti di e programa aqui. Un modula ta ser considerá un grupo di tareanan, habilidadnan y topiconan relacioná cu otro cual por ser presentá logicamente como un unidad independiente di entrenamento.

STIP ta inclui instruccion y/of lectura via videotape den un terreno specifico cu preguntas y problemas den boekinan di instruccion programá. Un unidad di entrenamento por varia entre un programa di 2 te 40 ora. E empleado tambe por haci trabao practico den un work shop y ta tuma test riba trabao den klas y den work shop. Ambos instruccion den klas y work shop ta ser siguí pa aplicacion adicional den trabao practico pa haya mas habilidad di trabao. E Centro di

Entrenamento tin un libreria di 244 modula di STIP, y ademas diezsiete programa di entrenamento desaroyá na Lago mes tocante topiconan manera Testmento No-Destructivo, G.E. Bulk Power, Probolog 700, Valve-nan di Ledeen, Sistema Deltak pa operacion di computador, y otronan.

Instruccion na e klasnan por ser duná y controlá for di un studio central mediante unidadnan di slide-tape of via unidadnan di television cu ta munstra video cassette of instructornan individual por duna lesnan. Varios instructor ta coopera cu e programanan, incluyendo R. Amaya, E. Browne, E.A. Cook, E. Diaz, P. de Souza, E. Dowling, J. Francis, R. Geerman. W. Geerman, U.G. Gilhuys, J. Harms, R. Hodge, P.J. Irausquin, J. Jackson, A. Kock, L. Kock, E. Rafael, A. Ras, F. S. Ruiz, E. Rumnit, F. Rumnit, N. Salas, R. Washburn and J. Yarzagaray.

E Centro di Entrenamento tin varios unidad pa graba y munstra programa di video-tape y aparatonan pa presenta slide-tape, un video studio completamente equipá pa tape programas di entrenamento na color y un libreria di slide y video-cassette di e programa STIP, cual ta cubri topiconan di instruccion pa Process, Instrument, Electrical, Machinist, Mechanical y Technical. E Centro tambe por presenta programa di video-tape of programas di STIP na cierto lugarnan den refineria.

Otro programanan cual e Centro di Entrenamento di Mechanical a yuda presenta na varios grupos di empleado ta inclui: Entrenamento di Seguridad, Promer Ayudo, Entrenamento tocante Contract, Centro di Distribucion di Corriente, y un programa di "Boiler & Refractory", cual a ser tumá tambe pa representantes di Depto. di WEB.

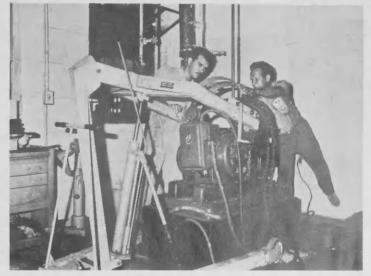
(Continuá na pag. 10)

Dos Motor Ta Retira, Metodo Nobo Ta Fiha Calidad di Azeta Diesel

Como un anja di trabao, testmento y evaluacion di hopi di personal di Laboratorio a trece un fin na 30 ania di servicio di dos motor di "Cetane" den Laboratorio di Depto. Tecnico luna pasá. Un estudio a proba cu e tempo cu e motornan ta abao tabata aumentando y partinan di reemplazo no tabata disponible.

Motornan di cetane (di cual tin solamente como cinco na uso den hemisferio occidental, incluyendo dos na Lago) ta ser usá pa determina calidad di ignicion di combustibles diesel encuanto nan numero di cetano segun ASTM.

Como cu determinacion di e numero di cetano usando e motornan di test ta trabahoso y ta tuma tempo, personal di Lago a considera pa substitui e specificacion di Numero di Cetano pa specificacion segun Index Calculá di Cetano. E formula pa calcula index di cetano ta un metodo pa averigua e numero di cetano di combustible diesel door di usa e peso di diesel segun API (standard di American Petroleum Institute) y mitar di e grado na cual e diesel ta herbe. E metodo aqui ta duna un specificacion confiable y ta ser usá hopi y ta reconocí pa casi tur inspectornan di pe-



troleo y pa American Society for Testing & Materials (ASTM).

Envez di test un prueba di diesel pa mas di un ora mientras e motor pa check cetano ta corre, e tester awor ta tuma e peso API di e prueba di diesel den algun seconde, ta corre un test di destilacion completo pa haya mitar di e grado na cual e diesel ta herbe y despues ta determina e index di cetano, tur den como 15 minu-

Promer cu Laboratorio a tuma over

The last of two 30year-old Cetane motors is being "retired" from the Laboratories by Mario Fingal (r) and Marciano Mathilda.

*

E ultimo di dos motor di Cetano di 30 anja bieuw Im ser "retira" for di Laboratorio pa Mario Fingal (dr) Marciano Mathilda.

e metodo nobo, informacion di testnan a ser colectá pa mas di 6 luna y como 100 test a ser hací. E informacion di testnan a indica cu e Index di Cetano Calculá ta garantiza cu e combustibles diesel di Lago ta di mes alto calidad di ignicion manera ta determiná door di motornan

pa asegura calidad di diesel, e dos motornan di 30 anja bieuw a yega na fin di nan bida util y eficiente y nan a ser desmantelá. E trabao aqui a ser hací pa Tecnico di Mantenecion Mario Fingal asisti pa Jr. Lab Assistant Marciano Mathilda. Mario ta un operador di e motornan di test aqui pa como 30 anja, y despues ta sigui 3 Lab. Assistant Severiano Danje cu 25

Pa hopi aña Mario tambe tabata 1 mantene y revisa e dos motornan di '

Awor cu e metodo nobo ta na uso

diesel aqui.



Winner of the poster contest organized by the 1977 Aruba Science Fair Committee), was Farley Wiersma, a student from Ma-1, ria College who receives a check as prize 1from ASF Committee Chairman Piet van Niel.

Old Engines Retire, New Method Takes Over Determination of Diesel Ignition

About a year of work, testing and evaluating by many of Lago's Lab personnel brought an end to the 30 years of service of two Cetane engines in the Technical-Laboratories last month. A study proved that the downtime period of these diesel engines was increasing and replacement parts were becoming unavailable.

Cetane engines (only about five in the western hemisphere, including two at Lago) are used to determine the ignition quality of diesel fuels in terms of ASTM cetane number.

Recause the determination of the cetane number on the test engine is cumbersome and time consuming, the Lab personnel considered substituting the Cetane Number specification by a Calculated Cetane Index specifi-

The calculated cetane index formula is a method for directly estimating the ASTM cetane number of diesel fuels by using API gravity and mid-boiling point. This method gives a reliable specification and has been widely used and recognized by almost all petroleum inspectors and the American Society for Testing & Materials (ASTM).

Instead of testing a diesel sample for over an hour while running the cetane engine, the tester now takes the API gravity of the diesel sample in a few seconds, runs a full distillation test for the mid-boiling point and then determines the cetane index, all in about 15 minutes.

Before the Lab took over the new method, test data had been collected for over 6 months and some 100 tests were performed. The test data indicated that the Calculated Cetane Index guarantees Lago's diesel fuels to be of as high ignition quality as determined by cetane engines.

With the new method now in use for assuring diesel quality, the two 30-year-old cetane engines came to the end of their useful and efficient life and were dismantled. The dismantling was done by Maintenance Technician Mario Fingal assisted by Jr. Lab. Assistant Marciano Mathilda. Mario has been an operator of the test engines for about 30 years, followed by Lab. Assistant Severiano Danje with about 25 years. For many years Mario has also been maintaining and overhauling the engines.

Utilities, M&C Men Get Intensive Training on New Relays/Switchgear

One of the more recent courses given to about a dozen men from Utilities and M&C-Electrical included two Bulk Power Center courses, one on Switchgear and one on Relays.

Both 32-hour courses were given by General Electric's Technical Services Department personnel. John Marshall was instructor for the switchgear course. He covered such topics as circuit breaker and switchgear inspection, adjustment and repair.

Carl Stover gave instruction on the new types of power system protective relays installed in the new Center and in the Utilities power distribution system. In all, the new Bulk Power Center at Lago's Powerhouse No. 1 has been equipped with some 24 new circuit breakers and about 200 new relays of various types.

Each course participant received an instruction book for his particular

The courses included 96 man-days of instruction, given at a total cost of approximately \$ 6000.

The courses were also videotaped for future instruction to personnel requiring these courses. In addition to the two courses, orientation sessions have also been held for the operating personnel of the Utilities Division

Additional orientation sessions are planned on the operation of the new control boards.



Carl Stover (at right) gives instruction on several types of new relays being installed in the new Bulk Power Center at Lago's Powerhouse No. 1.

Carl Stover (na drechi) ta duna instruccion tocante varios tipo di relays instalá den e Centro di Distribucion di Corriente na Powerhouse No. 1.

The new Bulk Power Center includes new switchgear and relay system in the first floor and control panels on the second floor for all five generators and for the existing switchgear in Powerhouse No. 1. The new Center also has space for future installation of control systems for other facilities of the Utilities Division.

Coordinator for these training programs was Lee Davidson. The Bulk Power Center is scheduled for completion and operation by the second quarter of next year.

cion ariba tiponan nobo di relays protectivo pa sistema di corriente instalá den e Centro nobo y den sistema di distribucion di corriente di Utilities Division. En total, e Centro di Distribucion di Corriente na Powerhouse No. 1 a ser equipá cu como 24 interruptor di circuito nobo y aproximadamente 200 relay nobo di varios tipo.

Cada participante di e cursonan a recibi un boeki di instruccion pa su curso particular. E cursonan a inclui 96 dia di instruccion, cu a ser duná na un costo di mas of menos \$ 6000.

E cursonan tambe a ser poní ariba videotape pa instruccion den futuro na personal cu mester tuma tal cursonan. Ademas di e dos cursonan, sesionnan di orientacion tambe a ser tení pa personal operador di Utilities Division. Sesionnan adicional di orientacion ta planeá tocante operacion di e panelnan di control nobo.

E Centro di Distribuicion di Corriente ta inclui equipo di switch corriente nobo y sistema di relay nobo den promer piso di e edificio y panelnan di control den segundo piso pa tur cinco generadornan y e equipo di switch corriente existente den Powerhouse No. 1. E Centro nobo tambe tin espacio pa futuro instalacion di sistemanan di control pa otro facilidadnan di Division di Utilities.

Coordinador pa programanan di entrenamento aqui tabata Lee Davidson. E Centro di Distribucion di Corriente ta programá pa ser completá y poní na operacion den segundo cuarto di otro anja.

Grupo di Utilities-M&C Ta Sigui Curso Intensivo Ariba Relays Y Switchgear Nobo

Uno di e cursonan mas reciente dună na como un docena di personal di Utilities y M&C-Electrical a inclui dos curso tocante e Centro di Distribucion di Corriente nobo, uno tocante Equipo di Switch Corriente y uno tocante Relavs.

Ambos curso di 32 ora a ser duná

door di personal di Depto. di Servicio Tecnico di General Electric. John Marshall tabata instructor pa e curso ariba Equipo di Switch Corriente. El a cubri topiconan manera interruptor di circuito, inspeccion, ahustamento y reparacion di equipo di switch corriente. Carl Stover a duna instruc-

John Marshall teaching a switchgear course to Utilities and Mechanical employees in Bulk Power Center.

*

John Marshall dunando curso di switchgear na empleados di Utilities y Mechanical den Bulk Power Center.

Exxon Engineering presented a Regional Seminar at Lago on Refinery Oil Loss Guidelines on December 6 - 7. Esso Inter-America, Exxon Research & Engineering and Lago representatives attending the seminar included (Sitting clockwise): Raul Bisbal and Raul Reyes - Managua (Nicaraqua): Everett Nelson and Roy Lee -Kingston (Jamaica); Modesto Ruiz - Lago; Casey Cummings - EIA; Ian MacLennan -Campana (Argentina); O. A. Choto-Croes -San Salvador; Steve Stein - Lago; lan MacLeod - Lago: Oscar Podzun - Campana; Vic Tjin Tham Sjin - Lago. Standing -I to r: Horace Prall - EIA Oil Loss Coordinator; Ron Trense and John MacKenzie, both instructors from ERE; Morley Marks -Course Coordinator for Lago.



Lago Policy Statement on Business Ethics

The policy of this Corporation, as stated by the board of directors, is one of strict observance of all laws applicable to its business.

Our policy does not stop there. Even where the law is permissive, Lago chooses the course of the highest integrity. Local customs, traditions, and mores differ from place to place, and this must be recognized. But honesty is not subject to criticism in any culture. Shades of dishonesty simply invite demoralizing and reprehensible judgements. A well-founded reputation for scrupulous dealing is itself a priceless company asset.

An overly-ambitious employee might have the mistaken idea that we do not care how results are obtained, as long as he gets results. He might think it best not to tell higher management all that he is doing, not to record all transactions accurately in his books and records, and to deceive the Corporation's internal and external auditors. He would be wrong on all counts.

We do care how we get results. We expect compliance with our standard of integrity throughout the organization. We will not tolerate an employee who achieves results at the cost of violation of laws or unscrupulous dealing. By the same token, we will support, and we expect you to support, an employee who passes up an opportunity or advantage which can only be secured at the sacrifice of principle.

Equality important, we expect candor from managers at all levels, and compliance with accounting rules and controls. We don't want liars for managers, whether they are lying in a mistaken effort to protect us or to make themselves look good. One of the kinds of harm which results when a manager conceals information from higher management and the auditors is that subordinates within his organization think they are being given a signal that company policies and rules, including accounting and control rules, can be ignored whenever convenient. This can result in corruption and demoralization of an organization. Our system of management will not work without honesty, including honest bookkeeping, honest budget proposals, and honest economic evaluation of projects.

It has been and continues to be Lago's policy that all transactions shall be accurately reflected in its books and records. This, of course, means that falsification of its books and records and any off-the-record bank accounts are strictly prohibited.

Dorna Bo Hogar Cu Seguridad

Casnan decorá masha bunita por ta e escena pa desgracia tragico, a menos cu bo ta tene cuenta cu e siquiente sugerencias:

E mata berde tradicional ta un peligro grandi pa candela. Selecciona un mata di Pascu cu tin takinan bon y berde.

- Tene un mata di Pascu natural leuw for di candela y pone awa na dje tur dia.
- Decora bo mata y bo cas cu decoracionnan cu no ta pega candela.

(Continuá na pag. 11)

Third Group of Trainees Completes Four-Week Oil Movements Basics Course

On December 23, four Docks Utility men, Urbano Figaroa, Remigio Kelly, Francisco Maduro and Romero Petrochi, completed a four-week Oil Movements Basics Course. The purpose of the program was to teach the men, who were recently transferred to the Oil Movements Division, the basic fundamentals of refinery operation to qualify them as assistant operators.

The program is divided into two phases. Phase I consists of classroom training and is a one-week program. The subject taught included: Mathematics, Pressure, Fluid Flow, Pumps, Temperature and Heat, Safe Handling of Volatile Material, Positive Attitude, Oil Mist, Safety in Process Operations, Energy Conservation, Fire training and Use of Scott Air-Pak.

Phase II consisted of three weeks of training on the docks and reefberths under the guidance of Area III

Trainer Efraim Rafael.

Two similar courses were given earlier this year and were completed by Franklin Boekhoudt, Francisco Harms, Juan Croes, Bernardino Thiel, Roberto Vrolijk, Jose Tromp and Rosendo Gomez. These men were more specifically trained in the Black Oil and Fuel Oil fields.

These programs were coordinated by Dufi Kock, Process Training Coordinator.

Centro Di Training

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(Continuá di pag. 7)

STIP y otro programanan ta ser obteni for di librerias den exterior, manera for di Exxon, Foxboro, Betz, I.B.M., Time Life Video y Great Plains University.

E programa STIP y hopi otro pro- '.'
gramas di entrenamento ta ser coordina pa Jerry Francis.

Deck The Halls Safely

Gaily decorated homes can set the scene for a tragic mishap, unless you heed these tips:

The traditional evergreen is a great fire hazard. Select a tree that has springy branches and green, tight needles.

Keep a natural tree away from fires and water it daily.

Trim the tree and your home with nonflammable decorations.

Be careful with candles. Keep them away from trees and decorations.

Look for Underwriters' Laboratories (UL) label when you buy electrical decorations. Check old tree lights carefully for worn insulation, loose sockets.

Don't use lights on a metal tree. You could be electrocuted.

Tips on Toys

Will you gift wrap an accident? Therefore, when selecting toys.....

- Consider the age and abilities of the child.
- Electrical toys should have the UL label.
- Watch out for toys with sharp edge or parts that can be pulled off and swallowed.
- Avoid shooting toys that may injure eyes.

Hints on Celebrations

As you raise a cup of cheer with family and friends to toast the season, remember this: More than half of all fatal traffic accidents involve people who had been drinking.

- It takes your body about one hour to eliminate the alcohol in one drink. Stick to the rule of "one for one".... or, just one drink an hour or one hour for each drink before driving.
- * If you are hosting a party, close the bar an hour before you expect guests to leave to give that extra margin of time they need before taking the wheel.
- Persuade a tipsy guest to let someone else drive him home.
- Remember, pedestrians celebrate, too. Be on the lookout for revelers on foot.





Dios Bendiciona Bo Pascu

Dios bendiciona bo Pascu unda cu bo ta

Y mantene bo curashi cendi manera luz;

Pasobra alma di hende ta e bela di Dios

Y e ta cendí ariba e nochi mas scur.

Dios bendiciona bo Pascu unda cu bo ta

Y mantene bo fuerte den bo fe;

Pasobra Espirito di Dios ta refugio di hende

Y e luz den hende su hogar.

Dorna Bo Hogar Cu Seguridad

(Continuá di pag. 10)

Sea cuidadoso cu bela. Tene nan na bon distancia di mata y decoracionnan.

Busca e etiqueta UL (Underwriters' Laboratories) ora bo ta cumpra decoracionnan electrico. Check wayanan di luz bieuw cu nan insulacion no ta gastá of cu e socketnan no ta los.

No usa luz electrico ariba mata di Pascu di metal. Bo por electrocuta bo mes.

Atencion pa Jugetes

Lo bo lora un accidente como regalo? Pesey, ora di escoge jugetes

- Considera e edad y abilidad di e mucha.
- Jugetes electrico mester tin e etiqueta UL.
- Tira bista pa jugete cu randnan skerpi of partinan cu por ser rancá y gulí pa mucha.
- Evita jugetes di tira cu por causa danjo na wowo.

Celebra cu Seguridad

Ora bo ta hisa e kelki di brindis hunto cu bo familia y amigos durante e temporada di Pascu y Anja Nobo, corda esaqui: Mas di mitar di tur accidentes di trafico fatal ta envolve hendenan cu a bebe.

- Ta tuma bo curpa como un ora pa elimina e alcohol di un solo trago. Atene bo na e regla di "un si, un no".. of, tuma solamente un trago den un ora of un ora pa un trago promer cu bo bai stuur.
- Si bo ta tene un fiesta cerra e bar un ora promer cu bo ta spera pa e huespedes bai pa duna extra margen di tempo cu nan mester promer di sinta tras di stuurwiel.
- * Persuadi un huesped cu ta un poco bao di influencia pa laga otro hende stuur pe.
- * Corda tambe, cu tin hende na pia tambe cu ta celebra. Tira un bista pa esnan cu ta paseando na pia.

God Bless Your Christmas

God bless your Christmas wherever you are And keep your courage bright; For the spirit of man is the candle of God, And it burns on the darkest night.

God bless your Christmas wherever you are And keep you strong in faith; For the Spirit of God is the refuge of man And the light is his dwelling place.

(Hazel Adams)

Message to a Driver . . . A Resolution for the New Year . . .

A Happy and Safe I am the motor vehicle.

I am the product of thousands of hours of thinking of those who developed me.

I am probably the most useful mechanism that has been made to facilitate the movement of persons and property in the interest of better living.

I should be one of the great blessings bestowed on mankind.

Yet, in my vital parts I carry death, destruction, mutilation, pain and suffering.

My power is so great you must control it or disaster will result.

Every time you drive me, please make me a good servant. I do not wish to kill, maim, destroy.

YOU can prevent me from doing so, by controlling yourself and by controlling me.

Mensahe pa e Chofer . . . Un Bon Resolucion pa Aña Nobo .

Ami ta e vehiculo di motor.

Illi ta producto di miles oras di pensamento di esnan cu a traba mi Illi ta probablemente e mecanismo mas util cu a ser traba pu facilità movemento di hende y propiedad den interes di un tuda mehor. Illi mester ta una di e bendicionnan grandi otorgà na humanidad. Sinembargo, den mi parlinan vital mi ta carga morto, destinación, mutilación, dolor y sufrimento.

Mi poder ta asina grandi en bo mester controle, sino desaster lo ta e resultado.

Tur ora cu bo stuur mi, sea asina boa di haci mi un bon sirviente.

Mi no ta desea di mata, manca of destrui.

ABO por preveni cu ami lo haci esey, door di controla bo mes y controla mi.

Un Aña 1977 Feliz y cu Seguridad